

A Connector

BACKGROUND OF THE INVENTIONFIELD OF THE INVENTION

[0001] The present invention relates to a connector provided with a retainer.

DESCRIPTION OF THE RELATED ART

[0002] U. S Patent No. 5,865,653 discloses a connector that has a housing formed with cavities for receiving terminal fittings. A retainer mount hole is formed in an outer surface of the housing and communicates with the cavities. The connector also has a retainer with a main body. Side plates project from opposite lateral ends of the main body and locking sections project from positions on the main body between the side plates. The retainer can be mounted to the housing so that the main body enters the mount hole and so that the side plates hold the outer side surfaces of the housing from opposite sides. The retainer is mounted for movement between a partial locking position and a full locking position. The locking sections of the main body are retracted from cavities when the retainer is at the partial locking position to permit insertion and withdrawal of terminal fittings. However, the locking sections enter the cavities to engage the terminal fittings when the retainer is moved to the full locking position. A locking recess is formed in the inner surface of each side plate of the retainer for engaging a corresponding partial and full locking

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[0011] Weakened portions preferably are provided in the side plates to make the side plates easier to deform away from outer surfaces of the housing.

[0012] Locking means preferably are provided for holding the retainer at a position on or in the housing different from the proper mount position.

[0013] Guiding means preferably are provided on the side plates and/or the outer surfaces of the housing for guiding the movement the retainer with respect to the housing.

[0014] These and other objects, features and advantages of the present invention will become more apparent upon reading of the following detailed description of preferred embodiments and accompanying drawings. It should be understood that even though embodiments are separately described, single features thereof may be combined to additional embodiments.

BRIEF DESCRIPTION OF THE DRAWINGS

[0015] FIG. 1 is a side view of a male housing according to one embodiment of the invention.

[0016] FIG. 2 is a rear view of the male housing.

[0017] FIG. 3 is a bottom view of the male housing.

[0018] FIG. 4 is a side view in section of a retainer.

[0019] FIG. 5 is a rear view of the retainer.

[0020] FIG. 6 is a perspective view showing portions of the male housing and the retainer around a locking projection and a guiding groove.

[0021] FIG. 7 is a side view in section showing male terminal fittings and the male housing in which the retainer is mounted at a partial locking position.